Operating Instructions

Dehumidified air dryer
CTT 30
CTT 60
CTT 120

64.10- 0076GB01A 06/98

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These operating instructions are for*:

(* Please fill in personally)

Serial number: _____

Built in: _____

Date of delivery: _____

Number of delivery: _____

Date of commissioning: _____

Location: _____

Group of machines: _____

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1. Safety instructions

These safety instructions apply to all persons within the range of action of the equipment.

Please inform all persons within the range of action of the equipment of the direct and indirect hazards connected with the equipment.

These operating instructions are to be used by all persons assigned activities connected with the equipment.

Knowledge of the English language is prerequisite.

Ensure in each case that the operating personnel are familiar with the operating instructions and the function of the equipment.

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1.1. Warnings and symbols

The following warnings and symbols are used in these operating instructions:

This symbol indicates danger to life! Fatal or serious injury is possible if the corresponding instructions, regulations or warnings are not observed.

☹

This symbol indicates that serious injury is possible if the corresponding instructions, regulations or warnings are not observed.

This symbol indicates that extensive damage to equipment is possible if the corresponding instructions, regulations or warnings are not observed.

This symbol indicates information important for becoming familiar with the equipment, i.e. technical correlations.

This symbol indicates that a technical term is explained at this point.

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1.2. Explanations and information

Various terms and designations are used in these operating instructions to ensure clarity. Therefore please note that the terms used in the text stand for the corresponding explanations listed below.

- Equipment
  "Equipment" can mean an individual unit, a machine or an installation.

- Operating personnel
  The "operating personnel" are persons operating the equipment on their own responsibility or according to instructions.

- Operator
  The "operator" of the equipment (production manager, foreman, etc.) is the person responsible for all production sequences. The operator instructs the operating personnel of what is to be done.

- Operating instructions
  The "operating instructions" describe the interaction of the equipment, production sequences or methods. The operating instructions must be compiled by the operator of the equipment.

- Equipment foreman
  When several operating personnel work on one machine, the "equipment foreman" coordinates the sequences. The equipment foreman must be appointed by the operator.

- Trained personnel
  "Trained personnel" are persons who, due to their training, are authorized to carry out the required work.

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1.3. For your safety

- The operator of this machine must be at least 16 years old.

- Read these operating instructions carefully before the initial start-up. Observe all points. Contact us if anything is unclear.
  This avoids injury and damage to equipment!

- These instructions must be stored in such a way that they are available at all times at the place of operation of the machine.
  Danger of accidents arising through improper use!

- Please note that for reasons of clarity not every conceivable case of operation or of maintenance can betaken into consideration.

- Observe all safety and hazard warnings on the equipment.
  This avoids injury and damage!

- Allow all work on the machine to be carried out only by persons whose qualifications are set out in the relevant chapters of the operating instructions.
  Danger of accidents from improper use!

- For all work carried out on the equipment only the prescribed working clothes should be worn.
  This avoids injury!

- Compare the electric supply values with those of the mains supply.
  Danger of accidents from electric shock!

- When using lifting gear, please observe the relevant regulations.
  Danger of accidents!

- Please note that all installation, start-up and maintenance work is to be carried out only by qualified, trained staff.
  Danger of accidents from improper use!

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- The local regulations and requirements pertaining to the equipment must be observed.

- The “5 safety rules” as provided in DIN VDE 0105, Section 1, must be observed for all work carried out on the equipment.

- Disconnect electrical components from the mains supply before work is carried out on these components.
  Danger to life and limb from electric shock!

- Do not modify, add other equipment or change the design of the equipment without the approval of the manufacturer.
  Danger of accidents!

- Compile detailed operating instructions based on the operating instructions supplied for the sequence of procedures to be carried out on this machine.
  Danger of accidents from improper use!

- Appoint a machine foreman to be responsible for the machine.

- Ensure that the operating staff are thoroughly trained in the operation of the equipment.
  Danger of accidents from improper use!

- If the machine is switched off for safety reasons, it must be secured against unauthorised activation.
  Danger of accidents!

- Before starting maintenance work, appoint a supervisor.

- Inform the staff responsible before starting maintenance work.
  Danger of accidents!

- Disconnect the equipment from the mains supply before starting maintenance work to ensure that it cannot be switched on accidentally.
  Danger of accidents!

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- Repair work may be carried out only by trained staff!
  Danger of accidents!

- Never operate the equipment when it is partly dismantled!
  Danger! Limbs may be caught in machinery! Electric shock!

- The machine may only be operated when all the associated components are properly connected up and in accordance with the relevant regulations.

- In case of malfunction, shut down the equipment immediately. Have faults corrected immediately.
  Danger of accidents!

- The machine is intended only for the drying of granulated plastics. Any other or additional use is contrary to specifications.

- This machine is not suitable for food-drying.

- Please note that sound levels exceeding 85 db(A) may in the long term damage your health. Use the appropriate ear muffs.
  This avoids impairment of hearing!

- Attachments not supplied by Colortronic must be manufactured in accordance with safety regulation EN 294.
  Danger of accidents!

- All pipes, hoses and screwed connections should be checked regularly for leaks and damage. Any faults which arise should be corrected immediately.
  Danger of accidents!

- The safety instructions of the connected machines must be followed.

- The return air filter should only be cleaned/replaced when the the main switch is off and the blower has stopped.
  This avoids injury and damage to equipment!

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- Never operate the dryer without side panels.
  Danger: Limbs may be caught in machinery! Injury through burns!

- When drying plastics which emit gases dangerous for human health, take care that the regeneration exhaust air is disposed of without polluting the environment.

- Open drying hoppers only if they are completely empty.

- Never open drying hoppers while the device is in operation.
  Danger: Iinjury through burns!

- Open drying hoppers only if they have been cooled down sufficiently.
  Danger: Injury through burns!

- Remove any granules remaining on the ground.
  Danger of accidents!

- Arrest the wheels after installation if the dryer is mounted on a movable frame.
  This will prevent danger to people and material!

- Take care that the device is not standing on the mains cable.
  This will prevent danger to people and material!

- Please note that the drying cells, drying hoppers and air pipings grow hot during use. Avoid touching any of these parts!
  Danger: Injury through burns!

- Operate the dryer only if there is at least one drying hopper operating.
  This will prevent damage of material!

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1.4. For the Safety of the Devices

- Never change settings without carefully assessing the consequences.
- Use only original Colortronic spare parts.
- Observe the maintenance instructions.
- Keep a record of all maintenance works and repairs.
- Please note that electronic components can be damaged by static discharge.
- Before initial operation and in regular intervals, make sure that no electrical connections are loose.
- Never readjust sensors without exactly knowing their functions.
- Please note that the maximum ambient temperature may not exceed +35 °C.
- Clean the drying hoppers before the first filling.
- Note the instructions of the material manufacturer for the maximum drying temperature.
- Note the drying instructions of the material manufacturer.
- Take care that the drying hoppers are always completely filled and that the retention period is respected if continual removal is taking place.
- Note that too large amounts taken from the drying hopper lead to insufficient drying of the material.
- Close the air stop valves of drying hoppers which are empty or have not been used.

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- Note down all data which you have entered into the control system.
- When you dispose of drying agents, observe all official rules.
- Note that drying cells are replaced or refilled by Colortronic only if they are empty.
- Note that the dryer may be neither tipped nor laid on its side.
- Clean or replace the return air filter only if the main switch is switched off and the blower has stopped.
- Operate the device only if the drying hopper is sufficiently filled with material.
- Operate the device only if at least one drying hopper is operating.
- Read the operating manuals of the connected devices.

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2. Assembly instructions

These installation instructions are intended for persons with skills in electrical and mechanical areas due to their training, experience and received instructions.

Personnel using these installation instructions must be instructed in the regulations for the prevention of accidents, the operating conditions and safety regulations and their implementation.

Ensure in each case that the personnel are informed.

The installation instructions provided in the corresponding operating instructions apply for all connected equipment.

Observe safety regulations with regard to lifting gear handling.

All installation work must be carried out with the equipment disconnected from electrical power and compressed air supply.

☹

For installation work taking place at heights of over approx. 6 feet, use only ladders or similar equipment and working platforms intended for this purpose. At greater heights, the proper equipment for protection against falling must be worn.

Use only suitable and technically sound lifting equipment and load suspension devices with sufficient carrying force. Do not stand or work under suspended loads!

Use suitable workshop equipment.

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Install the equipment such that all parts are easily accessible; this facilitates maintenance and repair work.

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2.1. Transport

The dryer or the compact unit is delivered on a pallet.

The dryer should only be moved by means of the appropriate lifting equipment (e.g. a fork lift).

Attention should be paid to the load capacity of the lifting equipment.

All safety regulations regarding work with lifting equipment should be obeyed.

The machine must not be tilted or laid on its side.

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2.2. Installation

Because of its compact construction the dryer can be installed directly beside the processing machine (drying hopper on the processing machine) or supplied with a drying hopper as a mobile attachment (compact unit).

Special foundations are not necessary for installation.

The dryer must be installed on a level surface and must not be exposed to excessive humidity. The maximum permissible ambient temperature is 35 °C.

To facilitate servicing, the dryer should be installed in such a way that that it is accessible from 3 sides.

The main switch must be freely accessible.

The equipment must not be tilted or laid on its side.

To conserve energy, keep the distance between dryer, hopper and processing machine as small as possible.

The wheels of the compact unit should be locked to ensure stable installation.

The foil should be removed from the drying hopper.

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2.3. Installation of the exhauster fan for regeneration of exhaust air

When plastics are being dried that release harmful gases during the drying process, care must be taken that the regeneration exhaust air is disposed of in an environmentally sound way. At the same time the throughput of the regeneration blower must not be altered. It should be noted when assembling a disposal system (e.g. an exhauster system) that the regeneration exhaust air is very humid. Thus condensation may form, which must not under any circumstances return to the dryer.

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2.4. Electrical Connection

The electrical connection of the dryer and of the hopper heaters may only be carried through or assigned by Colortronic service staff or by qualified staff authorized by Colortronic.

Other persons are not permitted to carry through the electrical connection.

Observe the rules of the local electricity board.

Regularly make sure that none of the electrical or screw connections are loose.

The operating voltage is 400 V/50 Hz, 3 AC or 400 V/60 Hz, 3 AC.
Special voltages can be supplied on request.

The connected loads are
CTT 30 . . . . . approx. 0.7 kW;
CTT 60 . . . . . approx. 1.6 kW;
CTT 120 . . . . . approx. 3.2 kW.
If hopper heaters are installed, the value of each hopper heater must be added to these connected loads (max. 9.0 kW).

Before connecting the mains plug, make sure that the main switch is at “0" position.

Connect the mains plug to a mains socket.
The fuse protection must have 16 A.

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2.5. Connection of Return Air Cooler (Optional)

A return air cooler must be employed if the return air temperature is higher than +65 °C.

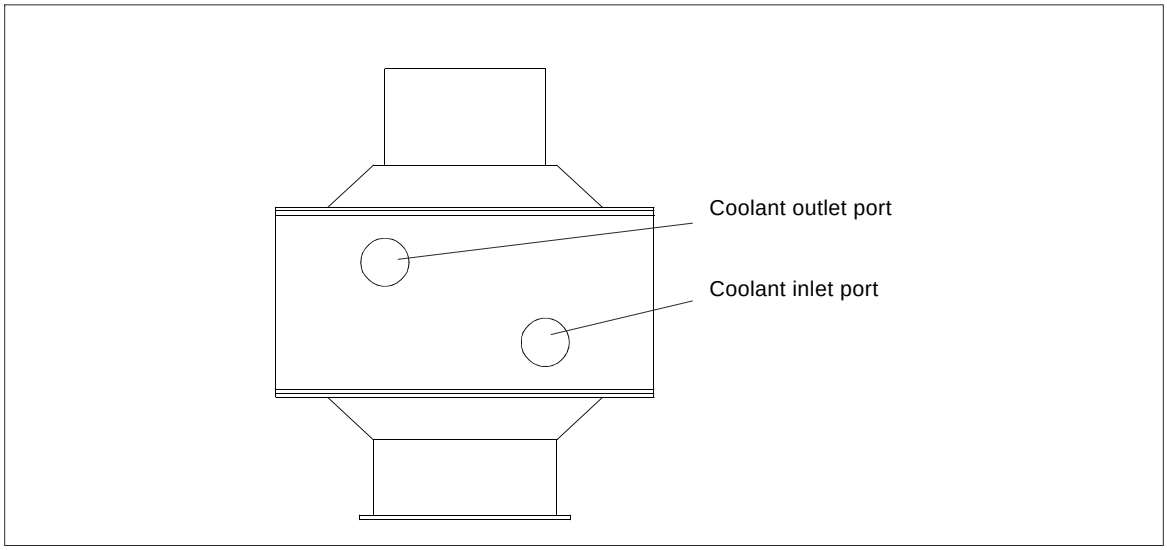
You can connect the return air cooler to a coolant circuit or to the water mains network.

The water flow rate in the water mains network is for:
CTT 30 . . . . . approx. 0.15 m3/h
CTT 60 . . . . . approx. 0.40 m3/h
CTT 120 . . . . . approx. 0.40 m3/h
(water temperature: +6 °C)
Rate your coolant circuit accordingly.

Connect the coolant in- and outlets to the return air cooler.

Observe the flowing direction of the coolant.

Check the tightness of the connections.



Return air cooler

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3. Functional description

This functional description is addressed to the operators of the equipment.

This functional description assumes general familiarity with drying equipment.

It should be verified that the operators do indeed have the appropriate skills.

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3.1. General Information

The dehumidified air dryers were developed for drying plastic granules. Due to their compact construction, they can be employed next to the processing machine (drying hopper on the processing machine) or with one or more drying hoppers as a movable facility (compact facility).

The dryers work according to the dehumidified air principle, i.e., the air is not only heated but also dehumidified before it flows through the drying hopper.

In this manner, plastic granules can be dried down to a very small residual moisture content.

The drying temperature can be adjusted, if necessary, up to a maximum of +180 °C (upper limit). Due to the heat that is released during water absorption in the drying cells, the lower limit of the dehumidified air temperature is approx. +70 °C.

The drying takes place continuously, i.e., there are no rest periods due to regeneration of the drying agent.

The dryer is rated for continuous operation.

The dryer may only be put into operation if the drying hopper is filled.

All function sequences are fully automatic.

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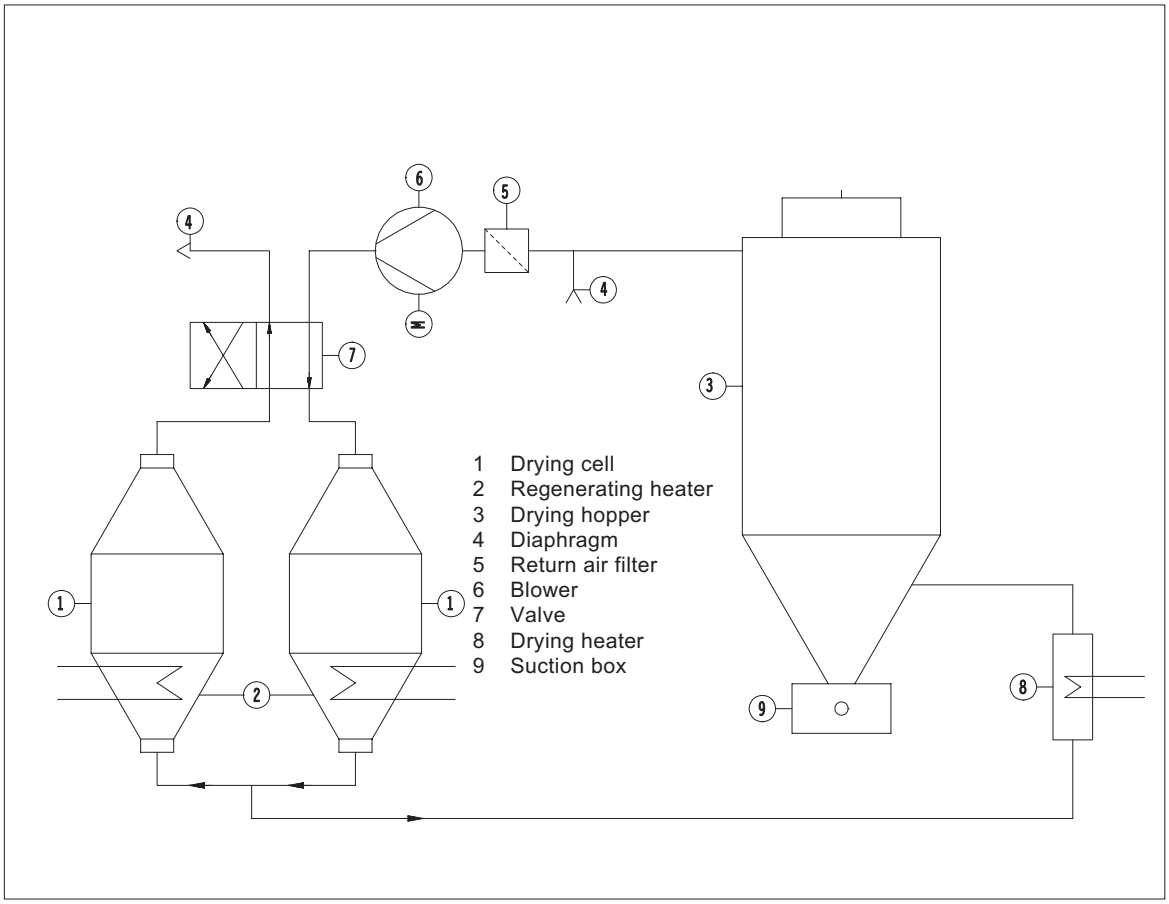
The dryer is equipped with two drying cells. One drying cell is part of the drying cycle; the other drying cell is regenerated simultaneously.

Part of the dehumidified air is used for regenerating the moist drying cell. At the beginning of regeneration, it is heated by the regeneration heater. After the end of the heating period, the drying cell is cooled off by means of dehumidified air. After the switch-over time is reached, the regenerated drying cell is included in the drying cycle, and the cycle starts again.

A digital display of the current dew point temperature can be supplied as additional equipment.



Functional diagram

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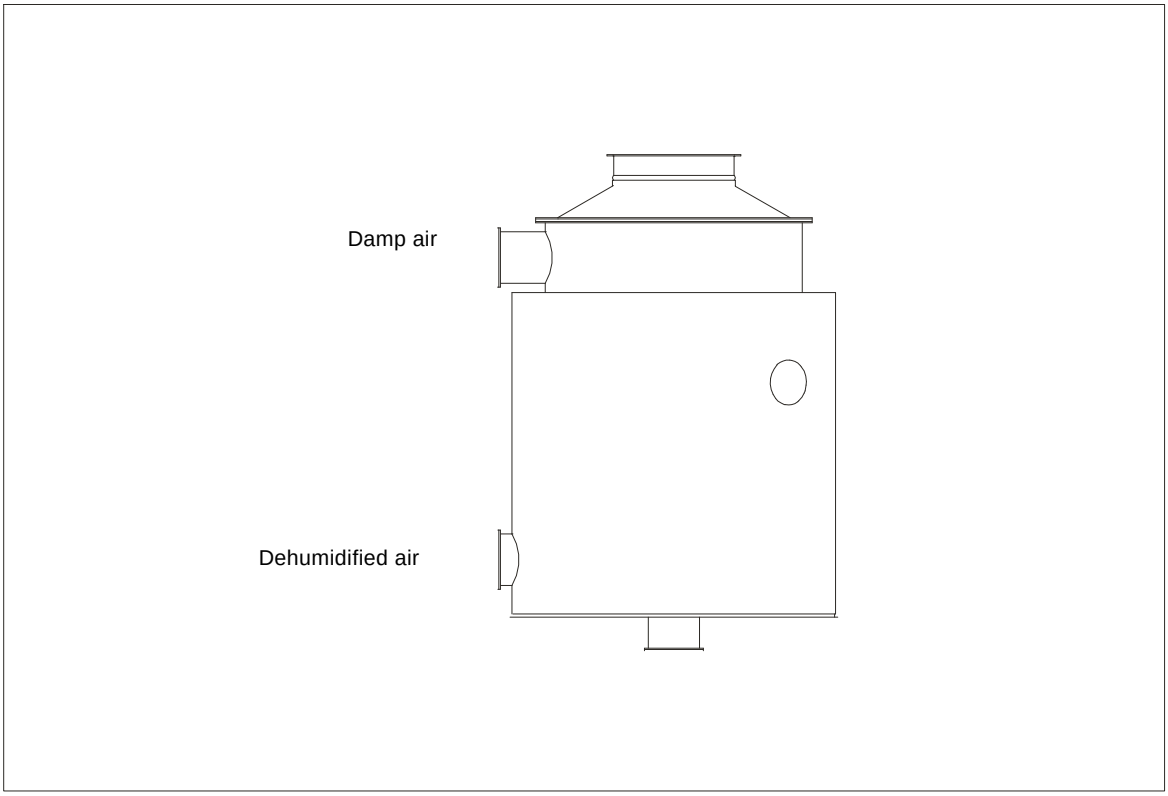
3.2. Drying Hopper (Optional)

The material is dried in the drying hopper. The dehumidified air is conducted through the material in the drying hopper and takes up moisture. Drying hoppers must have the appropriate dimensions for their specific use so that the desired final moisture content is reached. When refilling a drying hopper, the material must first be dried completely before material can be taken out for the first time.

If material is taken out continuously, there must also be a continual addition of material into the drying hopper (continuous drying process). New (moist) material is conducted into the upper opening of the drying hopper and slowly reaches the material outlet at the lower end. On its way from the upper to the lower end, the material is dried down to the final moisture content.

In order to guarantee a continuous drying process, we recommend that you always keep the drying hopper filled completely.



Drying hopper

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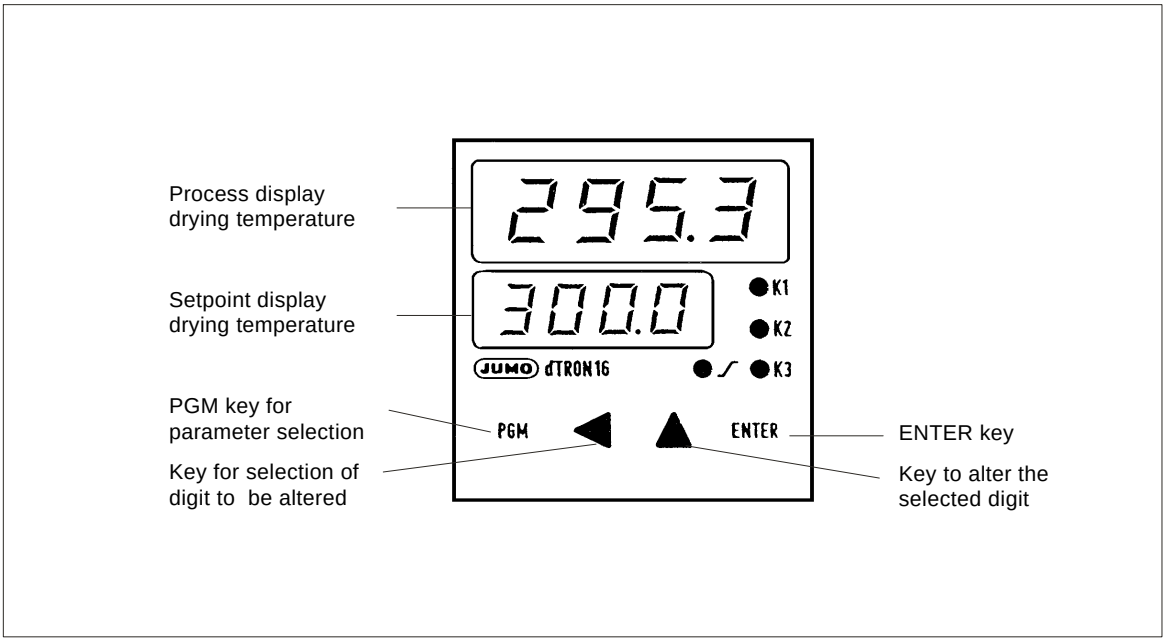
3.2.1. Hopper Heater

Each drying hopper has its own hopper heater. The temperature of the dehumidified air is adjusted by means of the thermo regulator. The setting range is from +70 - +180 °C. The current temperature can be read off the digital display (= actual value).



Temperature controller

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3.3. Connection to a Pneumatic Conveying System

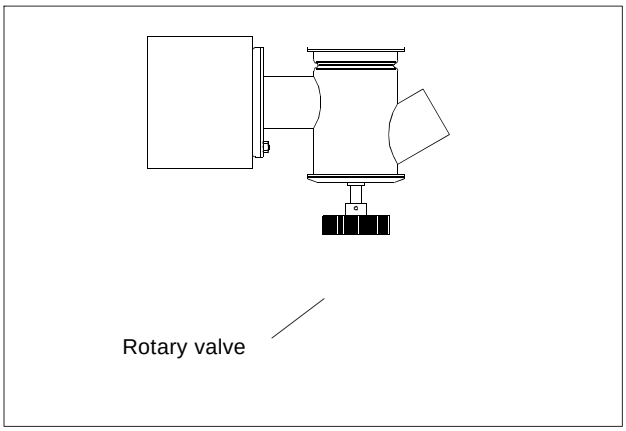
Your drying facility works best in combination with a pneumatic conveying system. In this way, your drying hopper will always be supplied with sufficient material.

The facility will only take as much material as is required by the processing machines. Therefore, the drying result will always be the same.

Colortronic drying hoppers are equipped with a suitable flange for adding a Colortronic pneumatic conveyor.

Suction boxes with suction tubes can be supplied as well (optional). These suction boxes are developped specifically for this type of hopper. They prevent dust and dirt particles from being drawn in from the atmosphere.

The loading of the conveying line is reduced by closing the rotary vane (optional). The loading is increased by opening.



Suction box

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3.4. Return Air Cooler (Optional)

A return air cooler must be employed if the return air temperature is higher than +65 °C.

A return air cooler improves the efficiency of the drying cells.

The lower the return air temperature, the better the efficiency of the drying cells.

The return air cooler can be connected to a coolant circuit or to the water mains network.

3.5. Timer Clock (Optional)

As an option, a timer clock can be supplied which switches the dryer on or off at preselected times.

Read the operating manual of the timer clock.

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4. Start up

This chapter is addressed to the operators of the machine.

This chapter assumes general skills with drying equipment.

This chapter assumes that the functional description has been read and understood.

It must be ensured that the operators have the required experience.

Make sure that the main switch is at “0" position.

Check the drying hopper for cleanliness.

Check to see whether the adhesive film on the drying hopper has be removed.

If there is a return air cooler, switch on its coolant circuit.

If there is a timer clock, switch it on.

Check whether the release switch is at ”0" position.

The red signal lamp may flash shortly while the valve block is changed.

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4.1. Initial Operation

Check whether the inlet of the drying hopper is closed by a blind lid, or whether a conveyor unit (optional) is installed.
If not, manufacture a suitable blind lid and install it on the inlet of the drying hopper or install the conveyor unit (optional).

Attachments which are not supplied by Colortronic must be manufactured according to the safety regulation European Standard 294.

Check whether the coolant circuit of the return air cooler is turned on (if a return air cooler is installed).

4.1.1. Switching on the Dyer

Switch on the main switch of the dryer.

The green signal lamp goes on and the blower is running.

For operation with timer clock:
Turn the release switch in “automatic” position.

For operation without timer clock:
Turn the release switch in “hand” position.

Read the operating manual of the timer clock.

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4.1.2. Setting the Drying Temperature

Turn the thermo regulator to +20 °C for the drying temperature.

Press the “PGM” key. PGM

Set the range for the drying temperature. ◀

Set the drying temperature (+20 °C). ▲

Press the “Enter” key. ENTER

☞ The dryer must be in operation for two hours.

Set the release switch at “0" position.

📖 The green signal lamp goes off.

☹ Wait until the blower has stopped.

If there is a return air cooler installed, switch off its coolant circuit.

Switch off the main switch of the dryer.

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4.2. Continuous Operation

Fill at least half of the drying hopper with material.

4.2.1. Switching the Dryer on

Switch on the main switch of the dryer.

The green signal lamp goes on and the blower is running.

For operation with timer clock:
Set the release switch at “automatic” position.

For operation without timer clock:
Set the release switch at “hand” position.

Read the operating manual of the timer clock.

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4.2.2. Setting the Drying Temperature

For each drying hopper, set the required drying temperature (= desired value) by means of the respective thermo regulator.

Check whether the set drying temperature is appropriate for the materials which have been filled in.
Observe the instructions of the material manufacturer.

After the first filling, process the material only after the retention period is over.
Observe the instructions of the material manufacturer.

Press the “PGM” key.

Select the setting range of the drying temperature.

Set the drying temperature.

Press the “Enter” key.

After a change of materials, immediately check and correct the set drying temperature.

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4.3. Switching the Dryer off

Set the release switch at “0" position.

🕮	The green signal lamp goes off.
☹	Wait until the blower has stopped.

If there is a return air cooler installed, switch off its coolant circuit.

Switch off the main switch of the dryer.

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4.4. Alarm Messages

An alarm is indicated by steady light of the red signal lamp.

Faults must be eliminated before the control system can again start operating.

The following errors can lead to an alarm:

Blower
The pressure of the blower is too low.

Regeneration heater 1
The safety temperature limiter of the regeneration heater 1 has been activated.

Regeneration heater 2
The safety temperature limiter of the regeneration heater 2 has been activated.

Hopper heater
The safety temperature limiter of the hopper heater has been activated.

Excess or insufficient temperature of the dryer heating system
The drying temperature is too high/too low.

When the fault has been eliminated, the red signal lamp goes off.

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5. Maintenance

This chapter is intended for persons with skills in electrical and mechanical areas due to their training, experience and received instructions.

Personnel using the instructions in this chapter must be instructed of the regulations for the prevention of accidents, the operating conditions and safety regulations and their implementation.

Ensure in each case that the personnel are informed.

For maintenance work taking place at theights of over approx. 6 feet, use only ladders or similar equipment and working platforms intended for this purpose. At greater heights, the proper equipment for protection against falling must be worn.

Use only suitable lifting gear which is in proper working order and load suspension devices with sufficient carrying capacity. Do not stand or work under suspended loads!

Ensure that the electric motors/switch cabinets are sufficiently protected against moisture.

Use suitable workshop equipment.

Before starting maintenance work, appoint a supervisor.

Inform the responsible personnel before maintenance work on the system is started.

Never operate the equipment when partially dismantled.

Any maintenance and repair work NOT described here may only be carried out by Colortronic service personnel or by specialised staff authorised by Colortronic.

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☹

Disconnect the equipment from mains supply before starting mainenance procedures to ensure that it cannot be switched on unintentionally.

All compressed air pipes on the equipment should be depressurised before starting maintenance work.

Please observe the maintenance schedule.

Before starting maintenance work, clean the equipment of oil, fuel or lubricant.

Ensure that materials and incidentals required for operation as well as spare parts are disposed of properly and in an environmentally sound manner.

Use only original Colortronic spare parts.

Keep record of all maintenance and repair procedures.

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5.1. Maintenance schedule

Daily:	Check warning signs on equipment for good legibility and completeness
	Clean return air filters and casing (depending on dust build-up)
Weekly:	Check main switch for proper function
	Check the signal lamps for proper functioning
Every six months:	Change return air filters (depending on dust build-up)
	Clean air filter of the suction box
	All electrical and mechanical connections should be checked to see if they fit securely
Annually:	Change air filter of the suction box
	Dewpoint should be checked (only by Colortronic service personnel)
Whenever the material is changed:	The drying hopper and suction box must be cleaned

The service intervals refer to a 3-shift operation.

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5.2. Cleaning or Replacing the Air Filter

Set the release switch at “0" position.

🕮	The green signal lamp goes off.
☹	Wait until the blower has stopped.

If there is a return air cooler installed, switch off its coolant circuit.

☹	Switch off the main switch of the dryer. Interrupt the mains supply so that the device cannot be switched on unintentionally.
🕮	Clogged filters substantially reduce the amount of circulating air and lead to a production lag of your dryer. Clogged filters may also damage the heating elements.

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5.2.1. Cleaning or Replacing the Return Air Filter

CTT 30

Detach the holding clips on the housing of the return air filter and remove the housing cover.

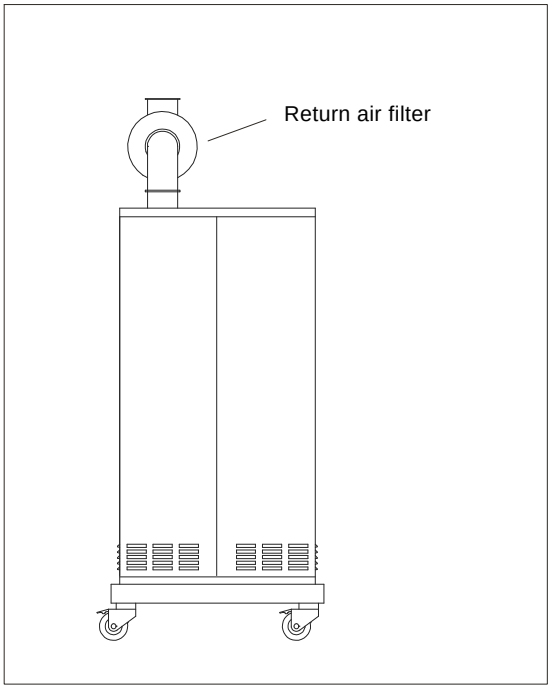
Remove the filter cartridge.

Clean the inside of the return air filter housing. Use non-fibrous cleaning cloths or an industrial type vacuum cleaner.

Blow compressed air from the inside out through the clogged filter cartridge **or** replace the filter cartridge.

Install the lid of the return air filter housing.

Fix the holding clips.



CTT 30

Never operate the dryer without return air filter.

Purchase order numbers return air filter
when operating without return air cooler: ID 85685

when operating with return air cooler: ID 85684

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CTT 60 / CTT 120

Detach the screw (M8) on the housing of the return air filter and remove the housing lid.

Detach the holding screw of the filter cartridge.

Remove the filter cartridge.

Clean the inside of the return filter housing. Use non-fibrous cleaning cloths or an industrial type vacuum cleaner.

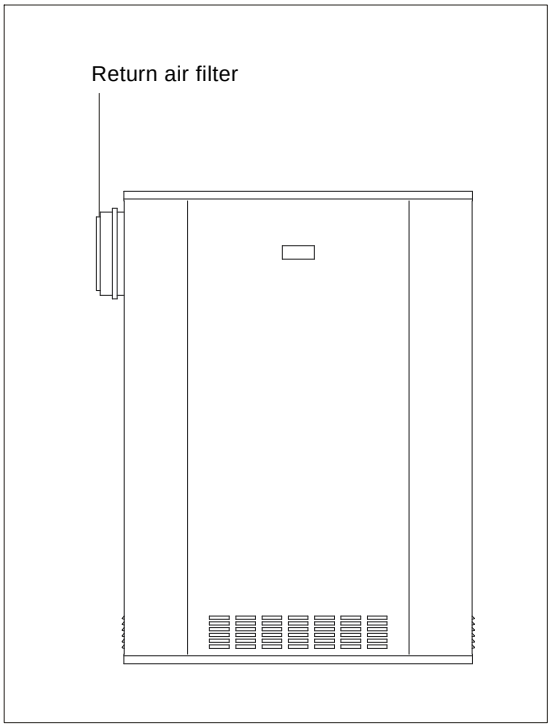
Blow compressed air from the inside out through the clogged filter cartridge **or** replace the filter cartridge.

Install the cleaned/new filter cartridge.

Fix the holding screw.

Install the lid of the return air filter housing.

Fix the screw (M8).



CTT 60 / CTT 120

Never operate the dryer without return air filter.

Purchase order numbers return air filter
when operating without return air cooler: ID 88366

when operating with return air cooler: ID 88628

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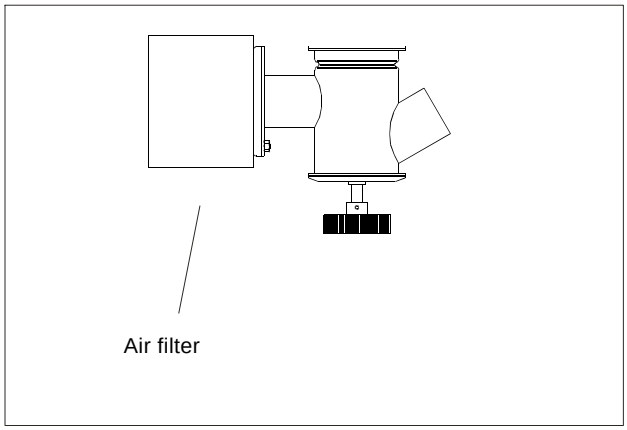
5.2.2. Cleaning or Replacing the Air Filter of the Suction Box (Optional)

Slide the air filter off the nozzle of the suction box.

Blow compressed air through the clogged air filter from the inside out **or** replace the air filter.

Install the cleaned/new air filter.



Suction box

Never operate the dryer without an air filter on the suction box.

Purchase order number

air filter: ID 98171

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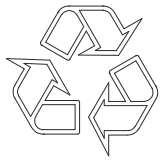
5.3. Disposing of Drying Agents

Please note that drying cells are replaced or refilled by Colortronic only if they are empty.



When disposing of drying agents, observe all official rules.

Since used drying agents may contain impurities from the dried materials, treat them as special waste.

It is not possible for Colortronic to take back the used drying agent or drying cells with used drying agents.

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5.4. Checking the Signal Lamps

🕮	The green signal lamp is always on when the dryer is operating. The red signal lamp goes on in the case of an alarm message, but can also flash shortly when the valve block is changed.

5.4.1. Replacing the Bulb of the Signal Lamp

Set the release switch at “0" position.

🕮	The green signal lamp goes off.
☹	Wait until the blower has stopped.

If there is a return air cooler installed, switch off its coolant circuit.

☹	Switch off the main switch of the dryer. Interrupt the mains supply so that the device cannot be switched on unintentionally.

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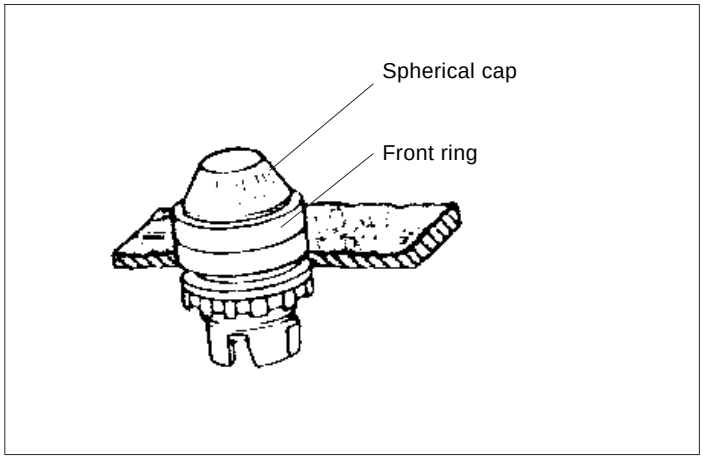
Open the front ring.

Remove the green/red spherical cap.

Replace the bulb.

Fix the green/red spherical cap.

Fix the front ring.



Signal lamp

Purchase order number	
bulb:	ID 85945

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5.5. Cleaning the Drying Hopper

Set the release switch at “0" position.

🕮	The green signal lamp goes off.
☹	Wait until the blower has stopped.

If there is a return air cooler installed, switch off its coolant circuit.

☹	Switch off the main switch of the dryer. Interrupt the mains supply so that the device cannot be switched on unintentionally.
☞	Clean the drying hopper each time you are changing the materials. Make sure that the drying hopper has cooled down sufficiently. Make sure that the drying hopper is completely empty. Remove any granules remaining on the ground.

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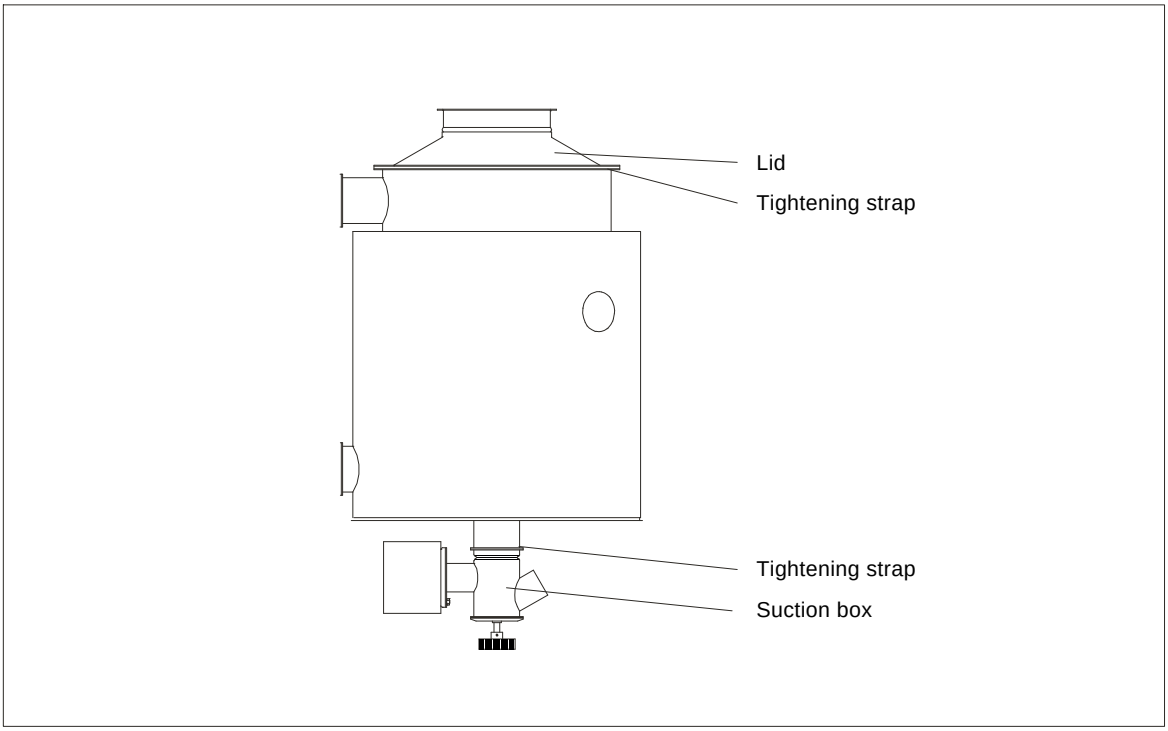
Detach the tightening strap of the suction box.

Remove the suction box.

Detach the tightening strap of the hopper lid.

Remove the lid.

Clean the drying hopper and the sieve.



Drying hopper

Installation

Install the lid.

Fix the tightening strap of the hopper lid.

Install the suction box.

Fix the tightening strap of the suction box.

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6. Technical data

6.1. CTT 30

amount of dehumidified air: . . . . . max. 30 m3/h

operating voltage: . . . . . 3 x 400 V/50 Hz
special voltages can be supplied on request

connected load: . . . . . 0.7 kW

calorific output (drying): . . . . . max. 9.0 kW
*depending on the equipment with hopper heaters

calorific output (regenerating): . . . . . max. 0.45 kW

driving power (drying, regenerating): . . . . . 0.1 kW

drying temperature: . . . . . max. +180 °C

width: . . . . . 566 mm (22.3 in.)

depth: . . . . . 508 mm (20 in.)

height: . . . . . 1291 mm (50.87 in.)

weight CTT 30: . . . . . approx. 80 kg (176 lbs)

noise: . . . . . approx. 70 dB (A)

options: . . . . . timer clock
. . . . . dew point display
. . . . . return air cooler

Return Air Cooler

water flow rate in the water mains network*: . . . . . approx. 0.15 m3/h
(water temperature: +6 °C)

height: . . . . . approx. 265 mm (10.43 in.)

width: . . . . . approx. 145 mm (5.7 in.)

pipe connection: . . . . . 1/2"

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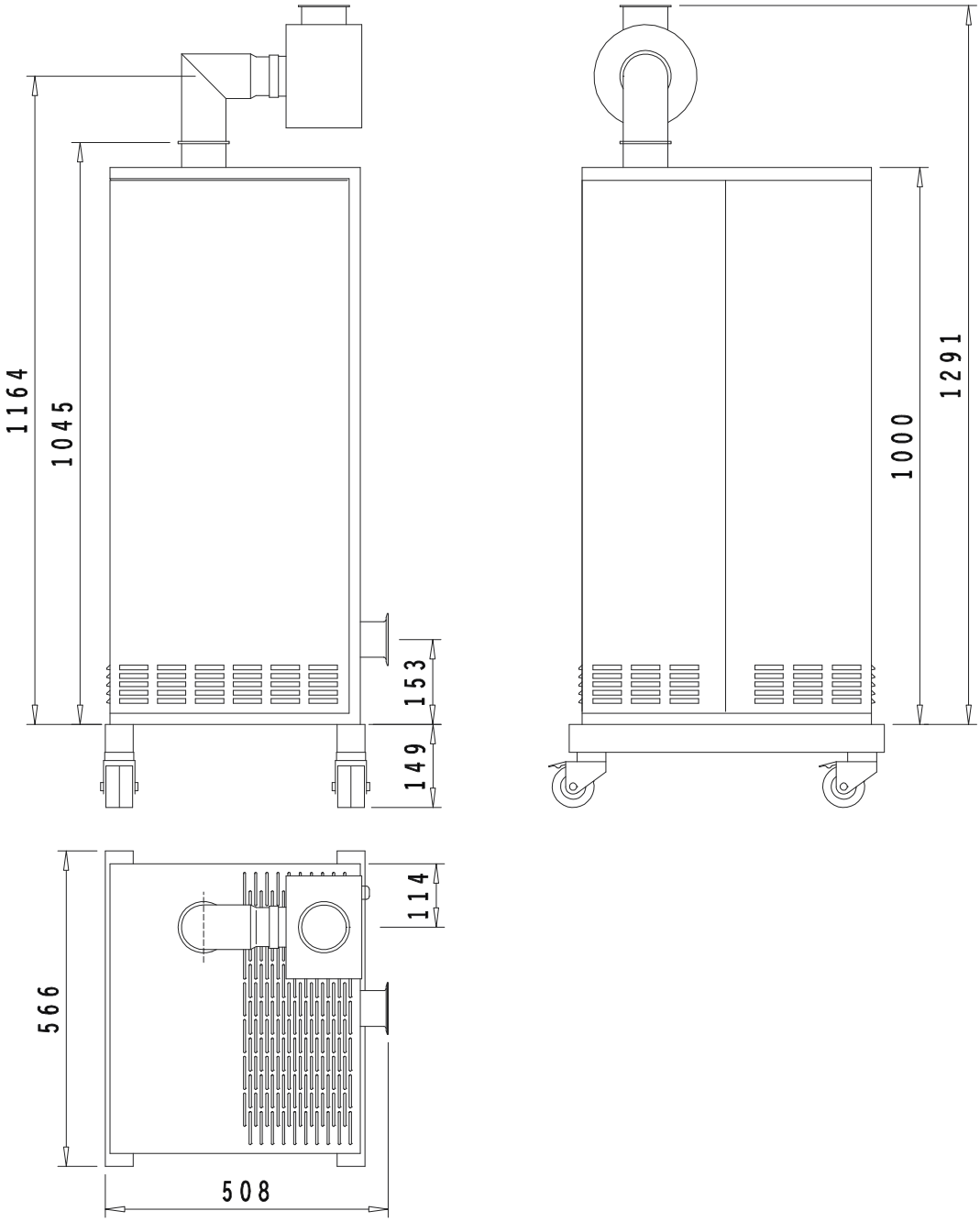
6.1.1. Dimension Sheet CTT 30



Dimensions and data are not binding. All dimensions are in mm. All data are subject to change.

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6.2. CTT 60

amount of dehumidified air: . . . . . max. 60 m3/h

operating voltage: . . . . . 3 x 400 V/50 Hz
special voltages can be supplied on request

connected load: . . . . . 1.6 kW

calorific value (drying): . . . . . max. 9.0 kW
depending on the equipment with hopper heaters

calorific value (regenerating):. . . . . max. 1.2 kW

driving power (drying, regenerating): . . . . . 0.37 kW

drying temperature:. . . . . max. +180 °C

width:. . . . . 600 mm (23.64 in.)

depth: . . . . . 900 mm (35.46 in.)

height: . . . . . 1200 mm (47.28 in.)

weight CTT 60: . . . . . approx. 130 kg (286 lbs)

noise:. . . . . approx. 75 dB (A)

options:. . . . . timer clock
. . . . . dew point display
. . . . . return air cooler

Return Air Cooler

water flow rate in the water mains network: . . . . . approx. 0.4 m3/h
(water temperature: +6 °C)

height: . . . . . approx. 265 mm (10.43 in.)

width: . . . . . approx. 145 mm (5.7 in.)

pipe connection: . . . . . 1/2"

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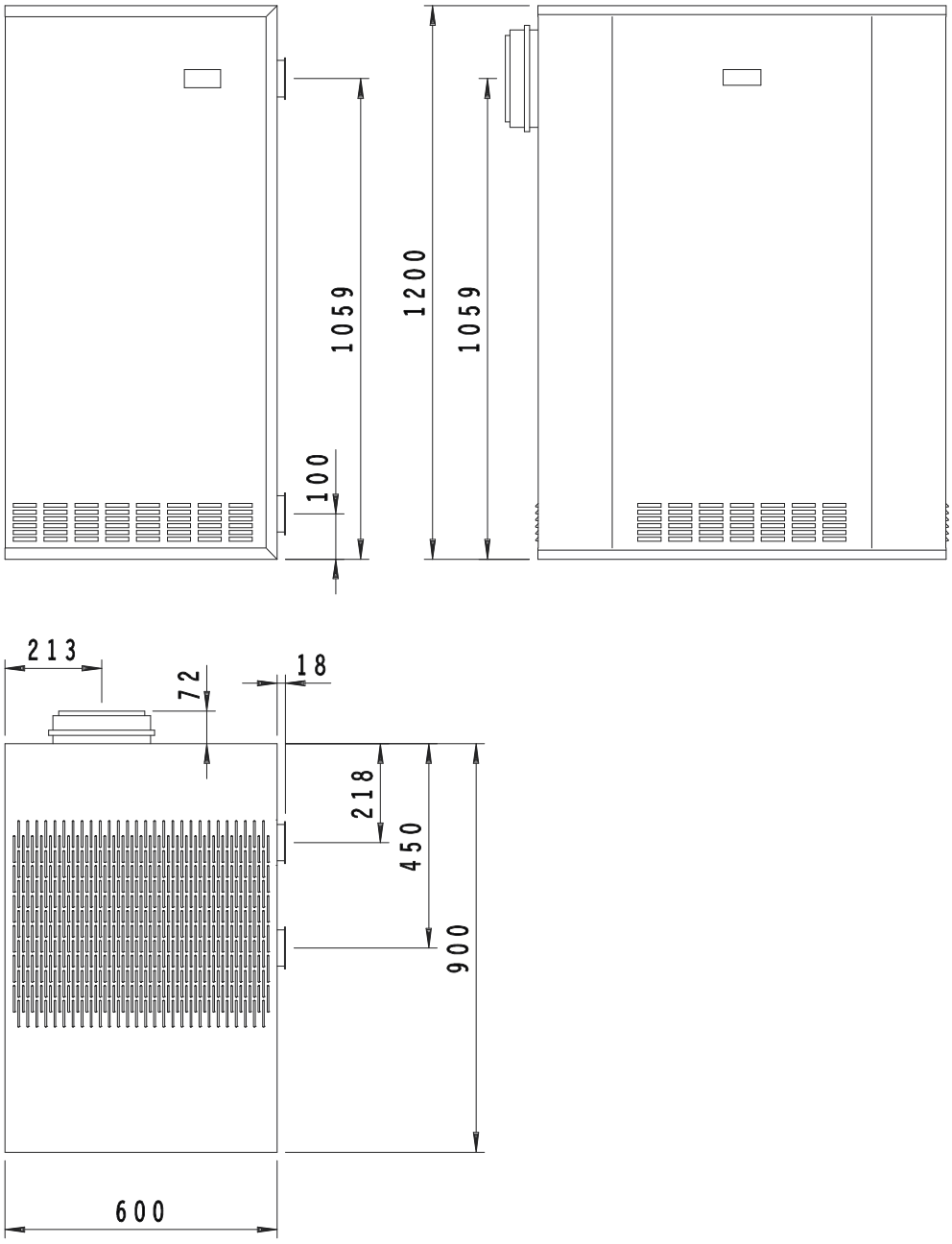
6.2.1. Dimension Sheet CTT 60



Dimensions and data are not binding. All dimensions are in mm. All data are subject to change.

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6.3. CTT 120

amount of dehumidified air: . . . . . max. 120 m3/h

operating voltage: . . . . . 3 x 400 V/50 Hz
special voltages can be supplied on request

connected load: . . . . . 3.2 kW

calorific value (drying): . . . . . max. 9.0 kW
depending on the equipment with hopper heaters

calorific value (regenerating):. . . . . max. 2.4 kW

driving power (drying, regenerating): . . . . . 0.75 kW

drying temperature:. . . . . max. +180 °C

width:. . . . . 600 mm (23.64 in.)

depth: . . . . . 900 mm (35.46 in.)

height: . . . . . 1200 mm (47.28 in.)

weight CTT 120: . . . . . approx. 160 kg (352 lbs)

noise:. . . . . approx. 75 dB (A)

options:. . . . . timer clock
. . . . . dew point display
. . . . . return air cooler

Return Air Cooler

water flow rate in the water mains network: . . . . . approx. 0.4 m3/h
(water temperature: +6 °C)

height: . . . . . approx. 265 mm (10.43 in.)

width: . . . . . approx. 145 mm (5.7 in.)

pipe connection: . . . . . 1/2"

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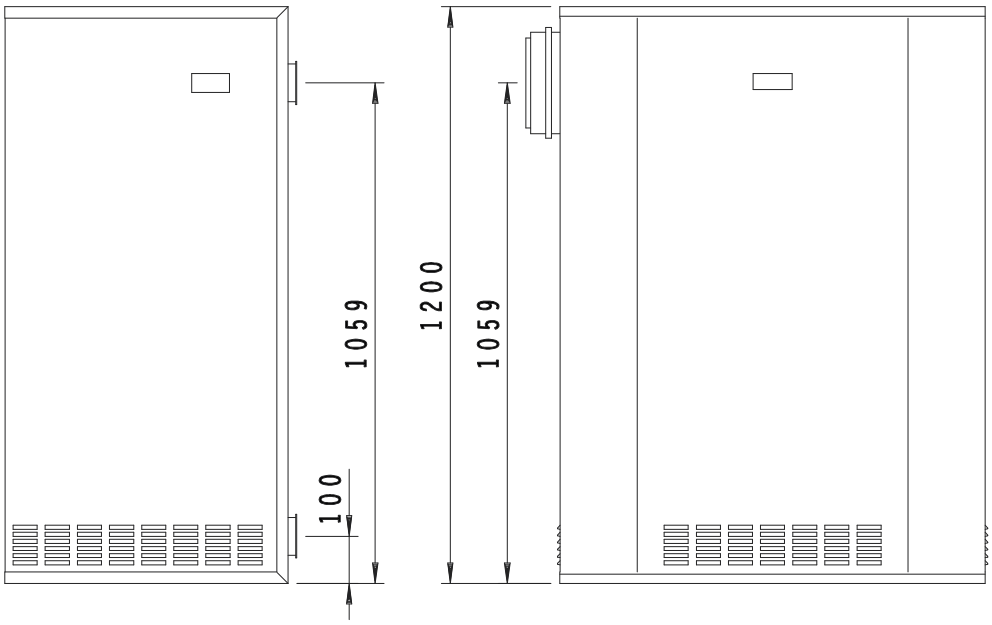
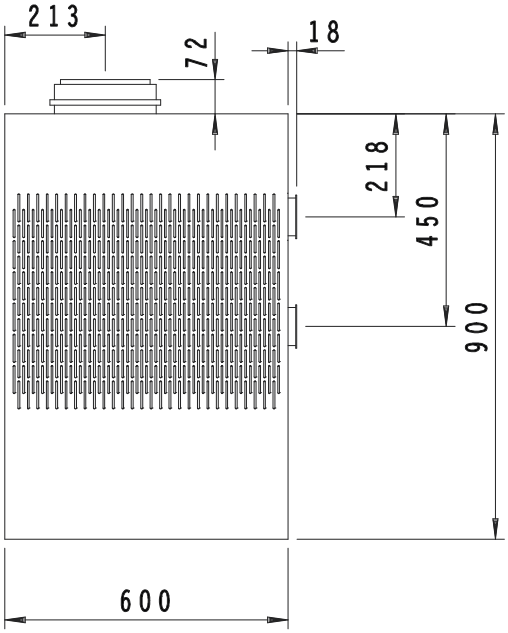
6.3.1. Dimension Sheet CTT 120





Dimensions and data are not binding. All dimensions are in mm. All data are subject to change.

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7. Annex

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7.1. Spare parts list

This spare parts list is intended to be used only by Colortronic service personnel and trained personnel authorized by Colortronic.

Other persons are not permitted to modify or repair the equipment.

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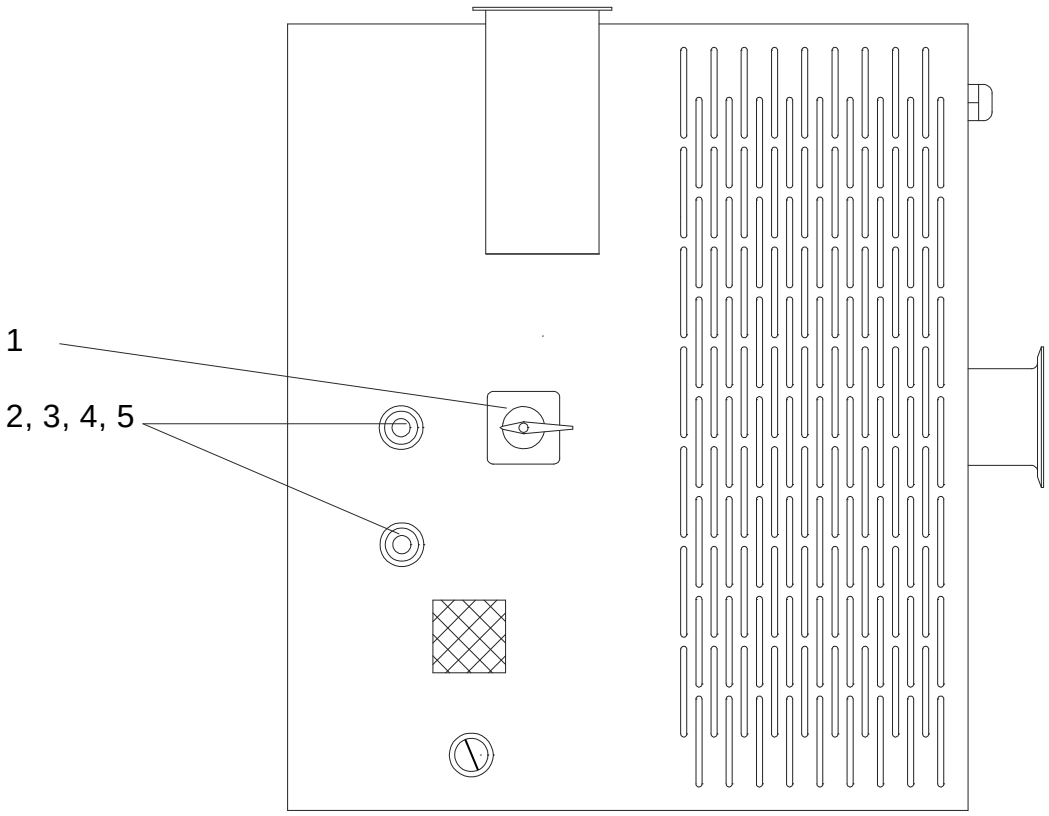
7.1.1. Parts list CTT 30



Pos.	ID-number	Description
1	88904	main switch
2	85942	lamp bottom
3	85943	spherical cap, yellow
	85247	spherical cap, green
	85248	spherical cap, red
4	87452	fastening
5	85577	bulb 24 V

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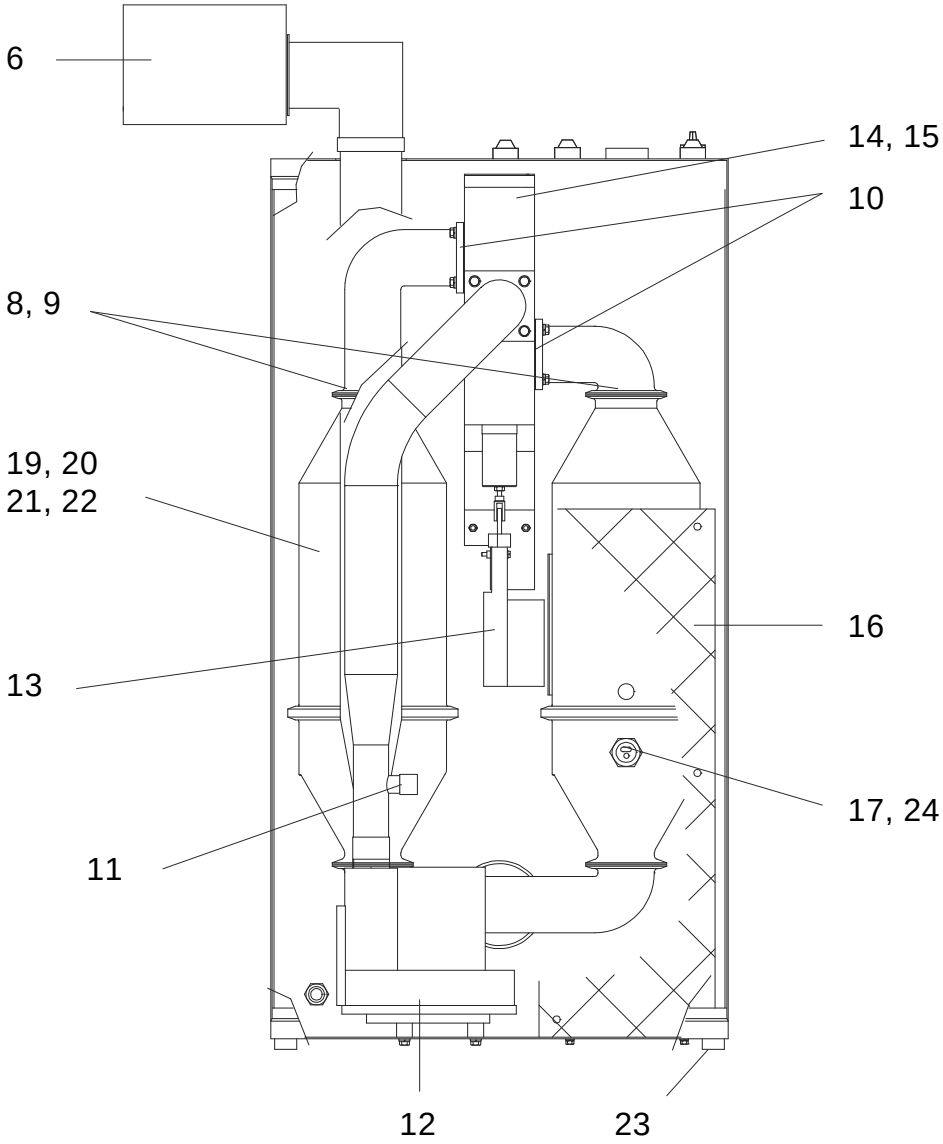

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Pos.	ID-number	Description
6	85684	return air filter, operation with return air cooler
	85685	return air filter, operation without return air cooler
7	85245	temperature controller 24 V (hopper heater)
8	94233	sealing ring
9	93298	hose clamp
10	21041	sealing
11	95819	pull-botton
12	85340	blower 400 V, 50 Hz
13	85334	motor operator 24 V
14	21032	valve housing
15	21033	spindle
16	16074	control 400 V
17	87460	thermostat (regeneration heater)
18	85346	thermostat (hopper heater)
19	23219	sieve
20	85690	sealing ring
21	85691	hose clamp
22	96196	desiccant (6.2 kg)
23	85689	base
	85341	base
24	85339	regeneration heater 400 V

Optional:

85241	timer clock
26207	dew point display
24467	return air cooler

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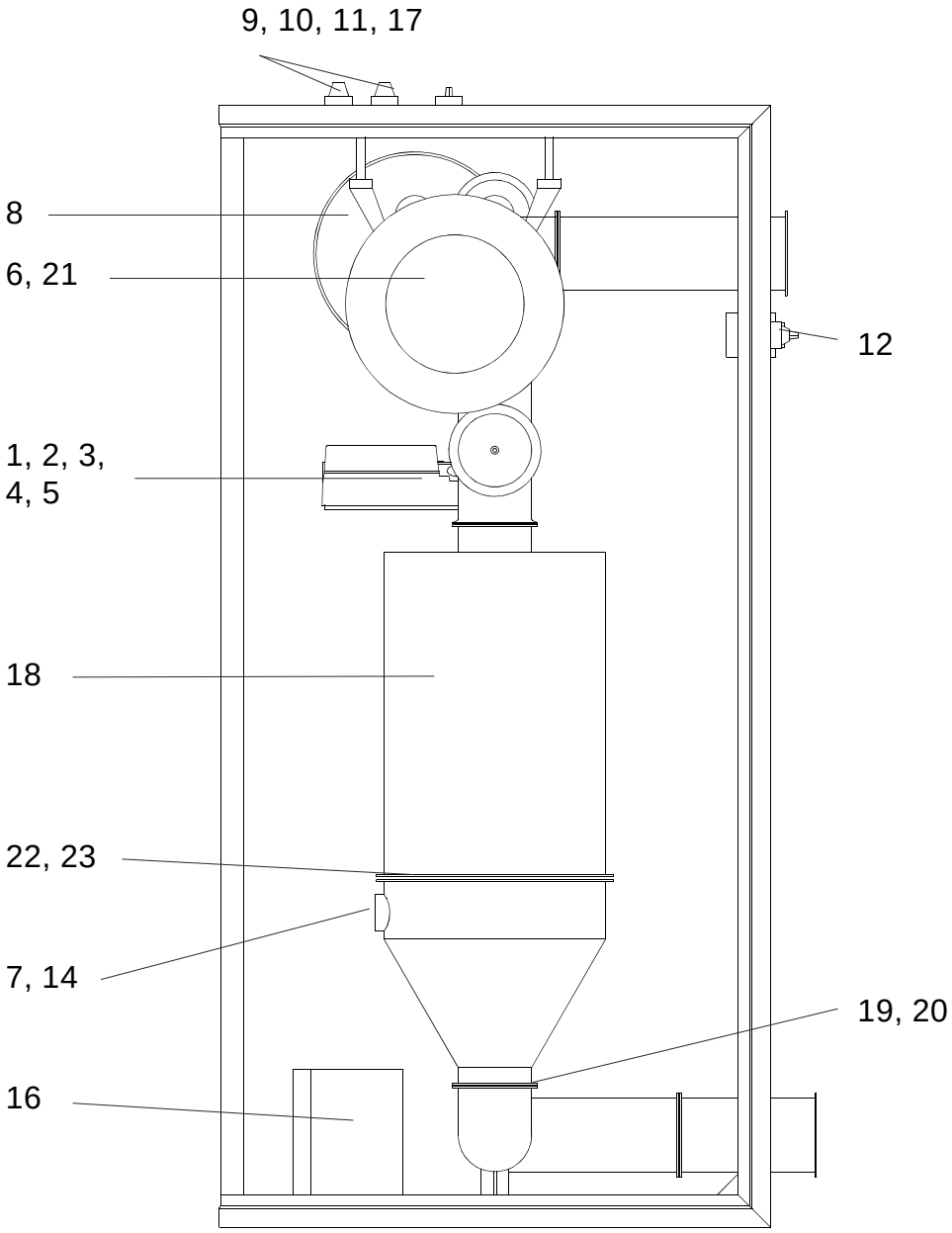
7.1.2. Parts list CTT 60



Pos.	ID-number	Description
1	86376	motor operator 24 V
2	23540	valve housing
3	23542	spindle
4	85667	link
5	89290	threaded pin
6	85678	blower 400 V, 50 Hz
7	85676	pipe heater unit (regeneration heater)
8	88366 88628	return air filter, operation without return air cooler return air filter, operation with return air cooler
9	85942	lamp bottom
10	85943 85247 85248	spherical cap, yellow spherical cap, green spherical cap, red
11	87452	fastening
12	88904	main switch
13	85245	temperature controller 24 V (hopper heater)
14	87460	thermostat (regeneration heater)
15	85346	thermostat (hopper heater)
16	93998	protective motor switch
17	85577	bulb 24 V
18	96196	desiccant (12.8 kg)
19	94233	sealing ring
20	93298	tension ring
21	95819	pull-botton
22	97677	hose clamp
23	23917	sealing ring

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Optional:

85241	timer clock
26207	dew point display
26245	return air cooler complete

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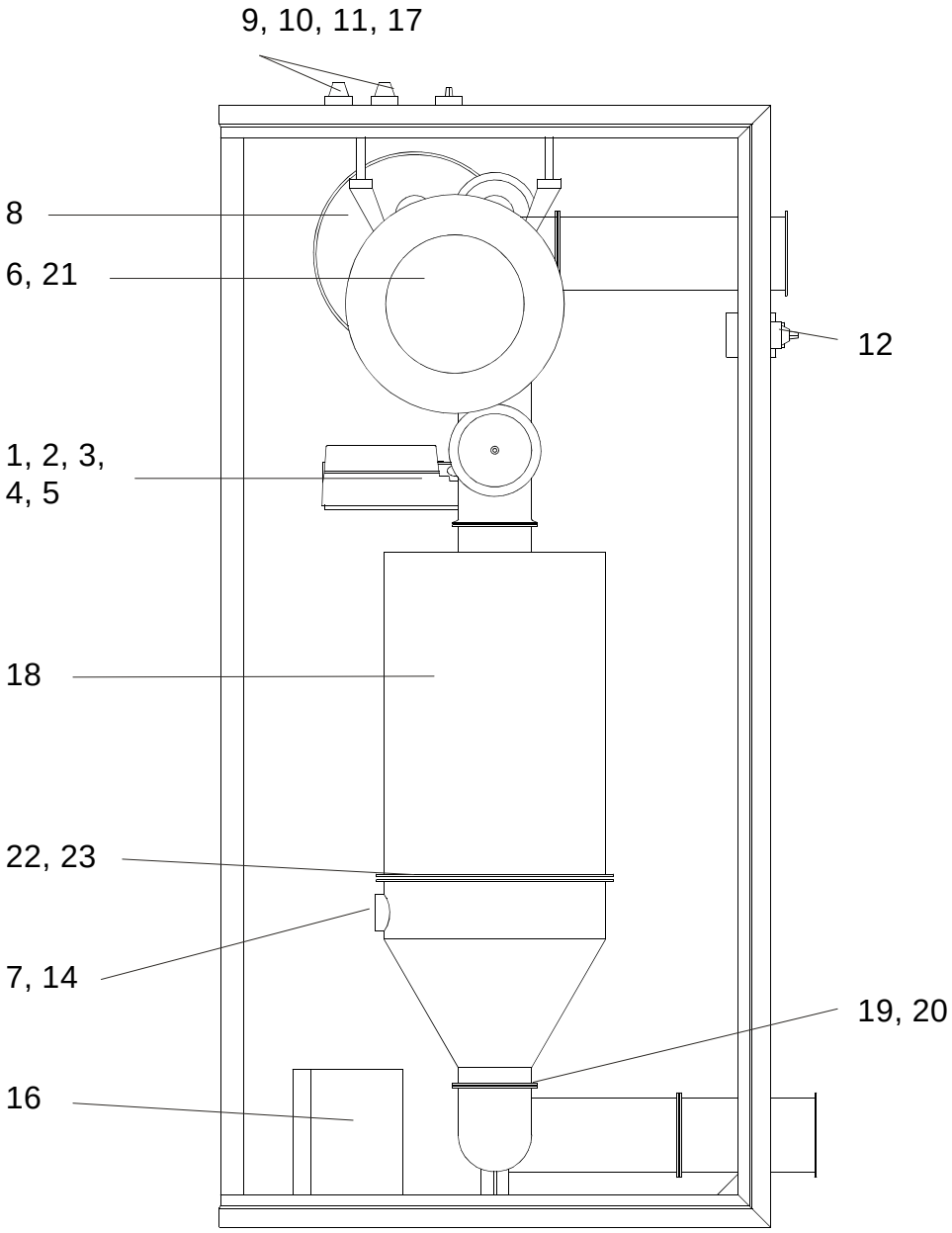
7.1.3. Parts list CTT 120



Pos.	ID-number	Description
1	86376	motor operator 24 V
2	23540	valve housing
3	23542	spindle
4	85667	link
5	89290	threaded pin
6	85677	blower 400 V, 50 Hz
7	85675	pipe heater unit (regeneration heater)
8	88366 88628	return air filter, operation without return air cooler return air filter, operation with return air cooler
9	85942	lamp bottom
10	85943 85247 85248	spherical cap, yellow spherical cap, green spherical cap, red
11	87452	fastening
12	88904	main switch
13	85245	temperature controller 24 V (hopper heater)
14	87460	thermostat (regeneration heater)
15	85346	thermostat (hopper heater)
16	93510	protective motor switch
17	85577	bulb 24 V
18	96196	desiccant (12.8 kg)
19	94233	sealing ring
20	93298	tension ring
21	95819	pull-botton
22	23918	sealing ring
23	86851	hose clamp

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Optional:

85241	timer clock
26207	dew point display
26245	return air cooler complete

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7.2. Electrical manual

This electrical manual is intended to be used only by Colortronic service personnel and trained personnel authorized by Colortronic.

Other persons are not permitted to modify or repair the equipment.

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Devices without timer clock and dew point display can be equipped with only one yellow signal lamp.

If the dryer is equipped with a yellow signal lamp, then

- the dryer can be switched on and off directly by means of the main switch.
- the yellow signal lamp flashes shortly when the dryer is switched on and when the valve block is changed.
- the yellow signal lamp goes on in the case of disturbances.
- the device has no release switch.
- no timer clock can be retrofit.
- no dew point display can be retrofit.

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